

IN THE CLAIMS:

Please amend the claims as follows:

1 to 45. (canceled).

46. (previously presented) A method for producing an optical member of quartz glass, said method comprising:

providing a blank which includes a contour portion for the contour of the optical member to be produced and an overdimension portion that has a surface which is defined by a lower side, an upper side opposite said lower side and spaced apart therefrom, and an outer edge extending around a center axis, and

subjecting said blank to a thermal treatment; and

subsequently cooling the blank, wherein measures are provided which, during cooling, keep heat conduction in an area adjacent said outer edge lower than in an area adjacent said center axis;

removing the overdimension portion so as to expose the optical member; and

wherein the measures comprise use of a preform as said blank wherein said overdimension portion includes a thickened portion which extends from said outer edge towards said center axis, said thickened portion varying in thickness so that the distance between the lower side and the upper side in an area adjacent the outer edge is greater than the distance between the lower side and the upper side in an area of said center axis.

47. (canceled).

48. (previously presented) A method for producing an optical member of quartz glass,
said method comprising:

providing a blank which includes a contour portion for the contour of the optical member to be produced and an overdimension portion that has a surface which is defined by a lower side, an upper side opposite said lower side and spaced apart therefrom, and an outer edge extending around a center axis, and

subjecting said blank to a thermal treatment; and

subsequently cooling the blank, wherein measures are provided which, during cooling, keep heat conduction in an area adjacent said outer edge lower than in an area adjacent said center axis;

removing the overdimension portion so as to expose the optical member; and

wherein the measures comprise

introducing said blank into a vessel having a removable upper side and a lower side opposite said upper side and spaced apart therefrom, and an outer edge connecting upper side and lower side and extending around a center axis, said upper side, said lower side and said outer edge defining an interior of the vessel receiving therein said blank, said upper side and said lower side have a higher thermal conduction in an area of said center axis than in an area adjacent said outer edge,

filling intermediate spaces between said blank and said vessel with SiO₂ powder, and

subjecting said blank surrounded by said SiO₂ powder in said vessel to a thermal treatment by introducing said vessel into a furnace and heating and subsequently cooling the vessel.

49. (previously presented) The method according to claim 46, wherein the distance between lower side and upper side across said thickened portion decreases continuously inwardly towards said center axis.

50. (previously presented) The method according to claim 49, wherein said distance decreases faster than linearly relative to an inward position on the blank.

51. (previously presented) The method according to claim 49, wherein said distance decreases linearly relative to an inward position on the blank.

52. (previously presented) The method according to claim 46, wherein said thickened portion begins at said outer surface.

53. (previously presented) The method according to claim 49, wherein said thickened portion begins at said outer surface.

54. (previously presented) The method according to claim 46, wherein said thickened portion extends from said center axis to said outer surface.

55. (previously presented) The method according to claim 49, wherein said thickened portion extends from said center axis to said outer surface.

56. (previously presented) The method according to claim 46, wherein said thickened portion is adjacent the upper side and a second thickened portion is provided adjacent the lower side, both of the thickened portions being thicker outwardly of the blank than in the area of the center axis thereof.

57. (previously presented) A method for producing an optical member of quartz glass, said method comprising:

providing a blank comprising a contour portion for the contour of the optical member to be produced and an overdimension portion surrounding the contour portion, said overdimension portion having a center axis, a lower portion, an upper portion opposite said lower portion and spaced apart therefrom, and an outer edge extending around the center axis,

subjecting said blank to a thermal treatment;

subsequently cooling the blank; and

removing the overdimension portion so as to expose the optical member;

said overdimension portion being configured such that, during cooling, heat conduction from the contour portion adjacent said outer edge is limited more than adjacent said center axis; and

wherein at least one of the upper and lower portions of the overdimension portion have different thicknesses adjacent the center axis and adjacent the outer edge, the thickness thereof adjacent the center axis being less than the thickness adjacent the outer edge.

58. (canceled).

59. (previously presented) The method according to claim 57, wherein said one of the upper or lower portions of the overdimension portion continuously decreases in thickness from the thickness adjacent the outer edge to the thickness adjacent the center axis.

60. (previously presented) The method according to claim 59, wherein said thickness decreases in a linear relation to an inward distance of the portion.

61. (previously presented) The method according to claim 59, wherein said thickness decreases at least in part at a greater than linear relation to an inward distance of the portion, so that the portion has an outwardly concave shape.

62. (previously presented) The method according to claim 57, wherein the upper and lower portions of the overdimension portion each have different thicknesses adjacent the center axis and adjacent the outer edge, the thicknesses thereof adjacent the center axis being less than the thicknesses thereof adjacent the outer edge.

63. (previously presented) The method according to claim 62, wherein the upper and lower portions of the overdimension portion each continuously decrease in thickness from the thickness thereof adjacent the outer edge to the thickness thereof adjacent the center axis.

64. (previously presented) The method according to claim 62, wherein said thicknesses decrease in a linear relation to an inward distance of the portion.

65. (previously presented) The method according to claim 62, wherein said thicknesses decrease at least in part at a greater than linear relation to an inward distance of the portion, so that the upper and lower portions each has an outwardly concave shape.

66. (new) The method according to claim 48, wherein the removable upper side and lower side each having a thickness in the area of the center axis that is less than a thickness thereof adjacent the outer edge so as to provide said higher thermal conduction in the area of said center axis.

67. (new) The method according to claim 66, wherein the upper or lower sides decrease in thickness from the thickness adjacent the outer edge to the thickness in the area of the center axis.

68. (new) The method according to claim 67, wherein said thicknesses decrease stepwise from the outer edge.

69. (new) The method according to claim 67, wherein said thicknesses decrease linearly from the outer edge.

70. (new) The method according to claim 48, wherein said removable upper side and lower side each have slits therein in the area of the center axis that increase heat conduction therein.